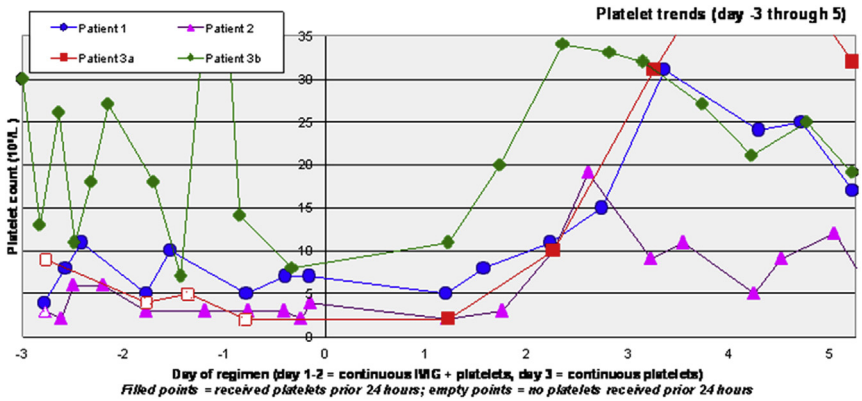

temporary platelet increase. Other means of minimizing risk for bleeding remain important and include use of aminocaproic acid and HLA matched platelets, prevention of hypertension while thrombocytopenic, pre-transplant testing for platelet reactive antibodies so HLA matched platelets may be obtained sooner, and choice of transplant conditioning regimen.

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Neck Tenderness As an Initial Presentation of Disseminated Aspergillosis; FNA Is an Option or a Must?

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Introduction: Asperillus thyroiditis (AT) has been considered for long time a postmortem diagnosis in immunocompromised patients. Disseminated disease is seen in the majority of patients. Diagnosis of AT during life needs high index of suspicion.
Objective: We describe an adolescent HSCT recipient with disseminated aspergillus infection who presented initially with painful neck swelling and found to have AT.
Case Report: History: A 15 years-old male with history of Acute Myeloid Leukemia and MUD HSCT who presented to our institution with painful neck swelling, sore throat, red/brown sputum and worsening respiratory distress for 2 days. Mom had of Hashimoto's thyroiditis. Physical Exam: His had initial hypotension, tachycardia, tachypnea and fine hand tremors. He had a neck swelling that was moving up and down on swallowing with tenderness but no nodules on palpation. Laboratory: His evaluation showed thrombocytopenia, normal WBC counts with neutrophil predominance, hypokalemia, transaminitis, direct hyperbilirubinemia, elevated Free T4 and very low TSH. Fine needle aspirate (FNA) of the thyroid and the sputum showed yeast on KOH. Imaging: Thyroid US with diffuse heterogeneous enlargement. CT Chest showed moderate to large areas of pulmonary consolidation bilaterally, with areas of cavitation. Clinical course: He was started on broad-spectrum antibiotics and antifungals. His respiratory and mental status got worse one day after admission needing transfer of care to the Pediatric ICU. His FNA of the thyroid grew Aspergillus Fumigatus. MRI brain showed numerous rounded lesions consistent with disseminated fungal disease, most likely Aspergillus. Family chose to continue with palliative care only with DNR/DNI having his disseminated disease and critical condition.
Discussion: Our patient had evidence of disseminated invasive aspergillosis involving thyroid, lungs and brain. Initially he had presumed infectious thyroiditis based on his clinical examination and laboratory values that were confirmed to be AT. Thyroid-related symptomatology can be occasionally seen on presentation. Although viral sub-acute and bacterial thyroiditis is more common than fungal one, but in immunocompromised patients AT has to be considered early on. Thyroid US guided FNA cytology and culture is considered to be a well-tolerated procedure that frequently utilized to diagnose AT successfully. Any delay in the management may significantly affect the outcomes where thyroid FNA can play a critical role in the early diagnosis of AT.
Conclusion: The diagnosis of Aspergillus Thyroiditis requires a high index of suspicion and it can be the initial presentation of disseminated invasive aspergillosis. Further studies are needed to evaluate the benefits of combined antifungals and address the management of thyroid hormone dysregulation.

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Low Dose Defibrotide for Management of Hepatic Veno-Occlusive Disease

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Background and objective: Hepatic veno-occlusive disease (VOD) is recognized as one of the common and serious regimen-related toxicity seen after hematopoietic stem cell transplantation (HSCT). VOD develops in 10% to 60% of patients after HSCT, and ranges in severity from mild to a severe syndrome associated with multiorgan failure and death. Defibrotide (DF) is the only drug found to be effective in the management of VOD. A randomised study showed that 25 mg/kg/d was equally effective with lesser toxicity compared to 40mg/kg/d. DF is prohibitively expensive and availability is scarce in our country.
Methods: Two hundred and ninety nine patients (166 autologous and 133 allogeneic; 210 male and 89 female) who underwent HSCT between November 2007 and June 2013 were included in this study. All patients received ursodeoxycolic acid as prophylaxis. The diagnosis and severity of VOD was defined according to Seattle criterion. Risk of development of severe VOD was estimated by Bearman model. Patients who developed VOD were initially treated with frusemide and analgesia. Patients not responding to above measures in 36-48 hours were given DF.
Results: Seven patients (2.3%) were diagnosed with VOD at a median of days +14 post transplant (range 11 to 16 days). All 7 patients were classified as having moderate VOD. All

Patient and disease characteristics

Case No	1	2	3	4	5	6	7
Age	**21**	**45**	**4**	**42**	**46**	**12**	**29**
Diagnosis	CML-CP	AML	JMML	AML	CML -BC	AML	SAA
Conditioning regimen	FLU-MEL	Flu-Busulfan	Flu-Bu-Mel	FLA+Ara-C+Ida+Mel	Flu-Mel	Flu-Mel-Ara-c-ATG	Flu-CY
Risk factor		High Ferritin		Haplo-HSCT		High Ferritin, MUD HSCT	High Ferritin
VOD on day	11	11	12	14	14	14	16
Maximal Bilirubin	3.8	5	1.2	1.4	3.2	1.34	3.1
Weight gain (%)	5	22	10	7.5	5	3	13
Bearman score	10	10	20	16	12	11	16
DF Dose mg/kg/d	5	7	7	5	10	10	10
Duration	6	12	10	6	8	8	12
Resolution by	D+17	D+28	D+21	D+20	D+22	D+10	D+24
Organ dysfunctioon		hepatic encephalopathy	Oxygen desaturation		renal failure, hepatic encephalopathy, Oxygen desaturation	Oxygen desaturation	renal dysfunction, hepatic encephalopathy, oxygen desaturation

patients received DF in doses ranging from 5 mg /kg/d to 10 mg/kg/d in two divided doses for median of 8 days (range 6 to12 days). Six patients received intravenous DF while 1 patient received oral DF. All patients had complete resolution of VOD by day +22 post transplant (range day + 17 to day +28). No dose response relationship was observed between DF dose and time to resolution of VOD. None developed any side effects of DF.

Conclusion: A lower dose of DF is effective and safe in treatment of moderate VOD. This is especially relevant in a limited resource setting, however needs prospective evaluation.

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Follow-up of Vaccination Status in Adults after Allogeneic Hematopoietic Stem Cell Transplantation

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Background: Following hematopoietic stem cell transplantation (HSCT), the probability that acquired protective immunity is lost over time is significant. Therefore, a systematic reimmunization is important to re-establish appropriate immunity and to decrease the risk of vaccine preventable infectious diseases with their related morbidity and mortality. The aim of this study is to investigate whether the recommendations for vaccination were followed in our hospital and to which extent of conformity they were used.

Methodology: A 2-year retrospective survey, including adult allogeneic HSCT patients, (transplanted) at the Ghent University Hospital, Belgium, who were at least 3 months post transplant. Administration of the first dose of conjugated polysaccharide vaccine against Pneumococci was studied.

Results: Data on vaccination schedules of 50 allogeneic transplantations were collected. Of these, 34 patients (68,0%) were eligible for recommended vaccinations. Patients were vaccinated on-schedule (i.e. time-frame between HSCT and vaccination as recommended in the hospital guideline) in 76,5% (26/34). Postponed vaccination with a medical indication was observed in 8,8% (3/34) of patients. Of them, 66,7% (2/3) were postponed because of infection and 33,3% (1/3) because of significant thrombocytopenia.

Postponed vaccination without a medical excuse was observed in a minority of the patients, i.e. 11,8% (4/34), with either 'no medical reason' in 75,0% (3/4) or nonadherence in 25,0% of patients (1/4). Postponed vaccination with initial medical indication but then followed by non-medical reason was observed in 2,9% (1/34) of patients. Vaccination data were not available for 32,0% (16/50) of patients. The reasons were death before start of vaccination in 75,0% (12/16), graft failure in 12,5% (2/16) and lack of information in 12,5% (2/16) of patients.

Conclusion: The results emphasize the need for close follow-up of post-transplant patients in our hospital. This is confirmed by satisfactory concordance between the hospital recommendation and vaccination of HSCT patients. Healthcare providers play a crucial role by effectively and appropriately following the vaccination schedules. Moreover, literature data demonstrate that actively involving the patient in the follow-up (e.g. providing them with their vaccination schedule) results in improved follow-up. The role of a personalized electronic alert system will be explored in near future. In addition, the appropriate follow-up of out-patient vaccination, 1 year after HSCT, will be studied.

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Tolerability of Foscarnet As a Continuous Infusion for Treatment of Herpesvirus Infections

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Foscarnet (FOS) remains the primary antiviral option in the setting of intolerance of and/or resistance to ganciclovir (GCV) and other inhibitors of viral kinase. However, FOS-associated nephrotoxicity often limits it utility. Because this nephrotoxicity can be attenuated by substantially increasing the infusion time and ensuring adequate hydration, we report a successful approach to the administration of FOS as a continuous infusion (CI) in both the inpatient and outpatient settings. The decision regarding administering FOS as a CI was solely at the discretion of the treating team with most common reasons cited as attenuation of nephrotoxicity, management of fluid balance, and facilitation of outpatient care.

Results: Data regarding both groups is summarized in Table 1. Throughout administration, total daily dose was adjusted per recommendations based on creatinine clearance and adjusted ideal body weight with an additional liter of hydration daily. Median duration of treatment was 23 days (4-123d). 22 of the 25 treatment courses (23 patients) resulted in successful resolution of the disease process;